

Remarks

Claims 13-49 are pending in the present application and have been rejected. By the present amendment, claims 13, 39, and 42 – 45 are amended.

Rejections Pursuant to 35 U.S.C. §112, Second Paragraph

In the Office Action, claims 13-49 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In support, it is asserted that “[i]n claim 1, step c), it is indefinite as to what the mixture is added to.” Applicants assume that the reference to claim 1 is a typographical error as this claim has been canceled. It is further assumed that the rejection was intended to be directed to claim 13, which is amended herein for clarity and recites, *inter alia*, “c) adding the mixture from a) to the metal oxide precursor” No new matter has been added.

With respect to claims 39 and 42-48 [sic], it is asserted that the recitation of “selected from . . . and” and “selected from . . . or” is improper Markush terminology. Claims 46 – 48 do not recite “selected from”. Also, claims 39 and 42-45 are amended herein and recite “selected from the group consisting of . . . and” No new matter has been added.

In light of the present amendments applicants submit the claims are in compliance with the statute and respectfully request that the rejection be withdrawn.

Rejections Pursuant to 35 U.S.C. §§102 & 103

Also in the Office Action, claim 40 was rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over either Karvinen or Michalczyk et al. Claim 40 was also rejected under §102(e) as anticipated by or, in the alternative, under §103(a) as obvious over either Horne et al. or

Murayama et al. In support, it was asserted that no distinction is seen between the metal oxide particles disclosed by the cited references and that recited in claim 8 [sic].

The present invention is directed to a metal oxide particle that is produced by the sol-gel process recited in amended claim 13, which process comprises a) providing a mixture comprising a halogen-containing target molecule and a polyhalogenated metal alkylalkoxy compound; b) starting a sol-gel process with an initial amount of a metal oxide precursor; c) adding the mixture from a) to the metal oxide precursor; and d) ending the sol-gel process. None of the references cited in support of the instant rejection disclose metal oxide particles produced by applying a polyhalogenated metal alkylalkoxy compound together with a metal oxide precursor in a sol-gel process. The same is mentioned in the indication of allowable subject matter recited on page 4 of the previous Office Action mailed on 3 October 2007. In light of the present amendment, applicants respectfully request that the rejection be withdrawn.

Also in the Office Action, claims 41-49 were rejected under §103(a) as being unpatentable over Karvinen or Michalczyk et al. or Horne et al. or Murayama et al. as applied to claim 40 above. In support, it is asserted that it would have been obvious from applicants' admitted prior art (para. [0002] to [0004] of the specification) to couple a biomolecule to the metal oxide particles of Karvinen or Michalczyk et al. or Horne et al. or Murayama et al. and to employ the particles as the other recited conventional uses.

Claims 41-49 depend from claim 40 and therefore contain all of its limitations. For the same reasons set out above with respect to claim 40, applicants further submit that claims 41-49 are patentable over the cited prior art and respectfully request that the rejection be withdrawn.

Conclusion

Applicants have filed a complete response to the outstanding Office Action and respectfully submit that, in view of the above amendments and remarks, the application is in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

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